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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,613	12/16/2003	Shigeo Fukuda	FUKU3001/EM	2775

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EXAMINER

BERNATZ, KEVIN M

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 09/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,613

Applicant(s)

FUKUDA, SHIGEO

Examiner

Kevin M. Bernatz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Amendment

1. Amendments to claims 6 and 10, filed on August 2, 2006, have been entered in the above-identified application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Examiner's Comments

3. The Examiner's comment in Paragraph No. 4 of the Office Action mailed on May 2, 2006 is maintained.
4. The Examiner appreciates applicants' clarification of the subject matter of claim 9, as requested in Paragraph No. 5 of the Office Action mailed on May 2, 2006.

Claim Rejections - 35 USC § 103

5. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al. (JP 11-103915 A) in view of Takeshita et al. (U.S. Patent No. 4,981,532) for the reasons of record as set forth in Paragraph No. 6 of the Office Action mailed on May 2, 2006. See provided English Translation of 915 A.

Regarding the amended language "has a plated layer formed on the surface thereof", the Examiner notes that the limitation "plated" is a process limitation(s) and is/are not further limiting in terms of the structure resulting from the claimed process.

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Specifically, in a product claim, as long as the prior art product meets the claimed structural limitations, the method by which the product is formed is not germane to the determination of patentability of the product unless an unobvious difference can be shown to result from the claimed process limitations. In the instant case, any additional layer is deemed to meet the claimed limitations, which is disclosed in Sakurai et al. (page 5, lines 19 – 23 of English translation).

6. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al. in view of Takeshita et al. as applied above, and further in view of Yellen (U.S. Patent No. 6,427,486 B1) for the reasons of record as set forth in Paragraph No. 7 of the Office Action mailed on May 2, 2006.

7. Claims 6, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al. in view of Takeshita et al. as applied above, and further in view of Hoffman (U.S. Patent No. 4,517,217 B1).

Regarding the limitation “has a plated layer formed on the surface thereof”, while the Examiner maintains that Sakurai et al. disclose the claimed limitation, the Examiner notes that Hoffman teaches the coating layers as set forth in Paragraph No. 8 of the Office Action mailed on May 2, 2006.

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8. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al. in view of Takeshita et al. and Hoffman as applied above in Paragraph 7, and further in view of Yellen ('486 B1).

Sakurai et al., Takeshita et al. and Hoffman are relied upon as described above.

Regarding the limitation of claims 7 and 9, Yellen is relied upon as set forth in Paragraph No. 7 of the Office Action mailed on May 2, 2006.

9. Claims 6 - 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al. (JP '915 A) in view of Takeshita et al. ('532) and Yellen ('468 B1) for the reasons of record as set forth in Paragraph No. 9 of the Office Action mailed on May 2, 2006. See provided English Translation of JP '915 A.

Regarding the amended language "has a plated layer formed on the surface thereof", the Examiner notes that the limitation "plated" is a process limitation(s) and is/are not further limiting in terms of the structure resulting from the claimed process. Specifically, in a product claim, as long as the prior art product meets the claimed structural limitations, the method by which the product is formed is not germane to the determination of patentability of the product unless an unobvious difference can be shown to result from the claimed process limitations. In the instant case, any additional layer is deemed to meet the claimed limitations, which is disclosed in Sakurai et al. (page 5, lines 19 – 23 of English translation).

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10. Claims 6 - 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al. in view of Takeshita et al. and Yellen as applied above, and further in view of Hoffman ('217).

Regarding the limitation "has a plated layer formed on the surface thereof", while the Examiner maintains that Sakurai et al. disclose the claimed limitation, the Examiner notes that Hoffman teaches the coating layers as set forth in Paragraph No. 10 of the Office Action mailed on May 2, 2006.

Response to Arguments

11. The Examiner's comment in Paragraph 4

The Examiner notes that applicants state that "Applicants have amended claim 6 to delete the phrase "wherein the permanent magnet ring consists of unit permanent magnets" and recite that each unit permanent magnet is a neodymium iron boron magnets that has a plated layer formed on the surface thereof" (*page 4 of response*). However, the Examiner notes that claim 6 still contains the recited limitation.

12. The rejection of claims 6 - 10 under 35 U.S.C § 103(a) – Sakurai et al. in view of various references

Applicant(s) argue(s) that the Figures "clearly indicate that the whole of each half of the magnetic material is magnetized as either a N pole or a S pole, rather than only in a uniaxial direction as claimed in the instant application" and that the visual

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representation of the present and Sakurai et al. figures clearly demonstrates a patentably distinction (*pages 6 - 7 of response*). The Examiner respectfully disagrees.

First, the Examiner notes that Figures are not considered drawn to scale unless explicitly states as such. Therefore, applicants are alleging that the representation chosen by Sakurai et al. is that the whole half is a N or S pole. However, the Examiner notes that this is unsubstantiated and, furthermore, Sakurai et al. explicitly states that the "poles of the magnet on the surface side can be opposite" (*page 6, line 10 of English translation*). Finally, the Examiner notes that applicants' own figures are substantially identical to those in Sakurai et al. (*e.g. Figure 6 and specification pages 8 – 13*) and, by applicants' arguments, would even imply that *all* of Figure 6 is both N and S poles. Clearly this is not the case and the artistic representation of the "N" and "S" are merely illustrations of the general location of *the* (singular) North and South poles. One of ordinary skill in the art would have readily appreciated that Sakurai et al. is merely representing that the N and S poles on the sphere are at opposite sides (*especially in view of the language on page 6, line 10 of the English translation*).

The Examiner asks applicants to provide explicit column+line citations where the present specification states that the "placement of the letter 'N' and the letter 'S' close to the edges of the sphere indicate that the poles are located only at those points" (*page 7 of response*). The Examiner notes that Figures 15A and 16A are no less vague than the Figures in the Sakurai et al. reference with regard to the exact location of the N and S magnetic poles.

Finally, the Examiner notes that one of ordinary skill in the magnetic art would readily appreciate that North and South poles are not unique locations, but are where the flux is predominant in a magnet. See for example "Electromagnetics Explained" by Ron Schmitt, pages 53 – 57, especially Figure 3-7. I.e. the terminology "north pole" and "south pole" means the location where the flux exits and enters, respectively, the magnetic body. Provided that these locations are on opposite sides of the magnetic body, they would meet the limitation of "uniaxial", and the Examiner notes that Sakurai et al. both teaches and illustrates the poles being on opposite sides of the magnetic bodies. See also "Magnetism FAQs", from <http://www.matchrockets.com/ether/magfaqs.html>, which gives some general definitions of magnetic terms and explains that the North and South poles are associated with the magnetic fields (*noting the singular 'the' associated with the description of the poles*).

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

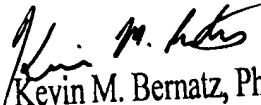
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Bernatz whose telephone number is (571) 272-1505. The examiner can normally be reached on M-F, 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KMB
September 21, 2006

Kevin M. Bernatz, PhD
Primary Examiner


Kevin M. Bernatz, PhD
Primary Examiner